```
=> file reg; d que l1
FILE 'REGISTRY' ENTERED AT 16:25:30 ON 15 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   14 AUG 2007  HIGHEST RN 944643-48-5
DICTIONARY FILE UPDATES:  14 AUG 2007  HIGHEST RN 944643-48-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html


L1            59 SEA FILE=REGISTRY ABB=ON  PLU=ON  HSDA[VI]FT[DEA][NS]Y[TS]R[LY]
                 R[KR]Q[L'NLE']AV[KR][KR]YLAA[IV]L|HSDA[VI]FT[DEA][NS]Y[TS]R[LY]
                 R[KR]Q[L'NLE']AV[KR][KR]YLAA[IV]LN|HSDA[VI]FT[DEA][NS]Y[TS]R[LY
                 ]R[KR]Q[L'NLE']AV[KR][KR]YLAA[IV]LG.{0-10}/SQSP


=> d rn cn sql kwic nte l1 1-59

L1   ANSWER 1 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868580-01-2  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Gly-Arg-Arg-Tyr-Arg-Gln-Arg-
     Val-Arg-Asn-Xaa) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   37: PN: WO2005102375 SEQID: 37 unclaimed protein
SQL  38

SEQ      1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR YRQRVRNX
           ========== ========== =======
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
uncommon         Aaa-38          -         -
----------------------------------------------------------------------

L1   ANSWER 2 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868580-00-1  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Val-Leu-Gly-Arg-Arg-Tyr-Arg-Gln-Arg-
     Val-Arg-Asn-Xaa) (9CI)  (CA INDEX NAME)
```

OTHER NAMES:
CN 36: PN: WO2005102375 SEQID: 36 unclaimed protein
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR YRQRVRNX
========== ========== =======
HITS AT: 1-27
NTE

type	location		description
uncommon	Aaa-38	-	-

L1 ANSWER 3 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868579-98-0 REGISTRY
CN Peptide, (His-Ser-Asp-Ala-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Arg-Gln-Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Gly-Arg-Xaa) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 34: PN: WO2005102375 SEQID: 34 unclaimed protein
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRX
========== ========== =======
HITS AT: 1-27
NTE

type	location		description
uncommon	Aaa-30	-	-

L1 ANSWER 4 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868579-97-9 REGISTRY
CN Peptide, (His-Ser-Asp-Ala-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Arg-Gln-Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Val-Leu-Gly-Arg-Xaa) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 33: PN: WO2005102375 SEQID: 33 unclaimed protein
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRX
========== ========== =======
HITS AT: 1-27
NTE

type	location		description
uncommon	Aaa-30	-	-

L1 ANSWER 5 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868579-96-8 REGISTRY
CN Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Val-Leu-Gly-Arg-Xaa) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 32: PN: WO2005102375 SEQID: 32 unclaimed protein
SQL 30

```
SEQ      1 HSDAVFTDNY TRLRRQLAVR RYLAAVLGRX
           ========== ========== =======
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
uncommon         Aaa-30          -         -
----------------------------------------------------------------------

L1   ANSWER 6 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868579-94-6  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Ala-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Gly-Arg-Xaa) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   30: PN: WO2005102375 SEQID: 30 unclaimed protein
SQL  30

SEQ      1 HSDAVFTANY TRLRRQLAVR RYLAAILGRX
           ========== ========== =======
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
uncommon         Aaa-30          -         -
----------------------------------------------------------------------

L1   ANSWER 7 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868579-92-4  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Glu-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Gly-Arg-Xaa) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   28: PN: WO2005102375 SEQID: 28 unclaimed protein
SQL  30

SEQ      1 HSDAVFTENY TRLRRQLAVR RYLAAILGRX
           ========== ========== =======
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
uncommon         Aaa-30          -         -
----------------------------------------------------------------------

L1   ANSWER 8 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868579-91-3  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Gly-Lys-Xaa) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   27: PN: WO2005102375 SEQID: 27 unclaimed protein
SQL  30

SEQ      1 HSDAVFTDNY TRLRRQLAVR RYLAAILGKX
           ========== ========== =======
```

```
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
uncommon         Aaa-30          -         -
----------------------------------------------------------------------

L1   ANSWER 9 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868579-90-2  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Gly-Xaa) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   25: PN: WO2005102375 SEQID: 25 unclaimed protein
SQL  29

SEQ      1 HSDAVFTDNY TRLRRQLAVR RYLAAILGX
           ========== ========== =======
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
uncommon         Aaa-29          -         -
----------------------------------------------------------------------

L1   ANSWER 10 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868579-89-9  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Xaa) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   24: PN: WO2005102375 SEQID: 24 unclaimed protein
SQL  28

SEQ      1 HSDAVFTDNY TRLRRQLAVR RYLAAILX
           ========== ========== =======
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
uncommon         Aaa-28          -         -
----------------------------------------------------------------------

L1   ANSWER 11 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868579-86-6  REGISTRY
CN   Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-
     Leu-Ala-Val-Arg-Arg-Tyr-Leu-Ala-Ala-Ile-Leu-Gly-Arg-Xaa) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   19: PN: WO2005102375 SEQID: 19 unclaimed protein
SQL  30

SEQ      1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRX
           ========== ========== =======
HITS AT:   1-27
NTE
----------------------------------------------------------------------
 type            ------ location ------         description
```

---

uncommon Aaa-30 - -

L1 ANSWER 12 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868579-85-5 REGISTRY
CN Peptide, (His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Lys-Gln-Leu-Ala-Val-Lys-Lys-Tyr-Leu-Ala-Ala-Ile-Leu-Xaa) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 18: PN: WO2005102375 SEQID: 18 unclaimed protein
SQL 28

SEQ 1 HSDAVFTDNY TRLRKQLAVK KYLAAILX
========== ========== =======
HITS AT: 1-27
NTE

---

type ------ location ------ description

---

uncommon Aaa-28 - -

L1 ANSWER 13 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868368-05-2 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

---

type ------ location ------ description

---

terminal mod. Arg-30 - C-terminal amide

L1 ANSWER 14 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868368-04-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR YRQRVRNR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-38	-	C-terminal amide

L1 ANSWER 15 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868368-03-0 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR YRQRVRNR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-38	-	C-terminal amide

L1 ANSWER 16 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868368-02-9 REGISTRY
CN L-Argininamide, N-acetyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDSY SRYRRQLAVR RYLAAVLGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	His-1	-	N-acetyl
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 17 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868367-97-9 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

```
SEQ      1 HSDAVFTDSY SRYRRQLAVR RYLAAILGRR
           ========== ========== =======
HITS AT:   1-27
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    Arg-30          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 18 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868367-93-5  REGISTRY
CN   L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-
     phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-
     arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-
     valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-
     leucylglycyl-L-arginyl- (9CI)  (CA INDEX NAME)
SQL  30

SEQ      1 HSDAVFTDSY SRYRRQLAVR RYLAAVLGRR
           ========== ========== =======
HITS AT:   1-27

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L1   ANSWER 19 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868367-91-3  REGISTRY
CN   L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-
     phenylalanyl-L-threonyl-L-α-glutamyl-L-asparaginyl-L-tyrosyl-L-
     threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-
     alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-
     isoleucyl-L-leucylglycyl-L-arginyl- (9CI)  (CA INDEX NAME)
SQL  30

SEQ      1 HSDAVFTENY TRLRRQLAVR RYLAAILGRR
           ========== ========== =======
HITS AT:   1-27

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    Arg-30          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 20 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   868367-73-1  REGISTRY
CN   L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-
     phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-
     threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-norleucyl-L-
     alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-
     isoleucyl-L-leucylglycyl-L-arginyl- (9CI)  (CA INDEX NAME)
SQL  30

SEQ      1 HSDAVFTDNY TRLRRQXAVR RYLAAILGRR
           ========== ========== =======
HITS AT:   1-27
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide
uncommon	Nle-17	-	-

L1 ANSWER 21 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868367-72-0 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 22 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868367-71-9 REGISTRY
CN L-Argininamide, N-(1-oxooctadecyl)-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified (modifications unspecified)

L1 ANSWER 23 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868367-70-8 REGISTRY
CN L-Argininamide, N-acetyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	His-1	-	N-acetyl

terminal mod. Arg-30 - C-terminal amide

L1 ANSWER 24 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 868367-65-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	location	description
terminal mod.	Arg-30 -	C-terminal amide

L1 ANSWER 25 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 791908-27-5 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 17: PN: JP2004315436 SEQID: 33 claimed protein
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR YRQRVRNR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 26 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 791908-26-4 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 16: PN: JP2004315436 SEQID: 32 claimed protein
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR YRQRVRNR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 27 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 791908-24-2 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 13: PN: JP2004315436 SEQID: 29 claimed protein
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 28 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 791908-23-1 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 12: PN: JP2004315436 SEQID: 28 claimed protein
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 29 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 791908-20-8 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-glutamyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 8: PN: JP2004315436 SEQID: 18 claimed protein
SQL 30

SEQ 1 HSDAVFTENY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 30 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 791908-18-4 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 4: PN: JP2004315436 SEQID: 9 claimed protein
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 31 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 736969-39-4 REGISTRY
CN L-Argininamide, N-octadecyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified (modifications unspecified)

L1 ANSWER 32 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-36-2 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR YRQRVRNR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-38	-	C-terminal amide

L1 ANSWER 33 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-35-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR YRQRVRNR

```
           ========== ========== =======
HITS AT:   1-27

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    Arg-38          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 34 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   735801-33-9  REGISTRY
CN   L-Argininamide, N-acetyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-
     isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-
     seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-
     alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-
     valyl-L-leucylglycyl-L-arginyl- (9CI)  (CA INDEX NAME)
SQL  30

SEQ      1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR
           ========== ========== =======
HITS AT:   1-27

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    His-1           -         N-acetyl
terminal mod.    Arg-30          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 35 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   735801-32-8  REGISTRY
CN   L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-
     L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-
     arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-
     valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-
     L-leucylglycyl-L-arginyl- (9CI)  (CA INDEX NAME)
SQL  30

SEQ      1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR
           ========== ========== =======
HITS AT:   1-27

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    Arg-30          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 36 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   735801-31-7  REGISTRY
CN   L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-
     L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-
     arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-
```

valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 37 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-28-2 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-glutamyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTENY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 38 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-27-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-norleucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQXAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide
uncommon	Nle-17	-	-

L1 ANSWER 39 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-26-0 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 40 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-25-9 REGISTRY
CN L-Argininamide, N-acetyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	His-1	-	N-acetyl
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 41 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-24-8 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 42 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN

RN 735327-72-7 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-alanyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 24: PN: WO2004048401 SEQID: 24 claimed sequence
CN 35: PN: JP2004315436 SEQID: 20 claimed sequence
SQL 30

SEQ 1 HSDAVFTANY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 43 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-59-7 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 31: PN: WO2004048401 SEQID: 31 claimed sequence
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR YRQRVRNR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-38	-	C-terminal amide

L1 ANSWER 44 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-58-6 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-arginyl-L-valyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 30: PN: WO2004048401 SEQID: 30 claimed protein
SQL 38

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR YRQRVRNR
========== ========== =======

HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	location		description
terminal mod.	Arg-38	-	C-terminal amide

L1 ANSWER 45 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-57-5 REGISTRY
CN L-Argininamide, N-acetyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 29: PN: WO2004048401 SEQID: 29 claimed sequence
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	location		description
terminal mod.	His-1	-	N-acetyl
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 46 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-56-4 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 28: PN: WO2004048401 SEQID: 28 claimed sequence
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	location		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 47 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-55-3 REGISTRY

CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 27: PN: WO2004048401 SEQID: 27 claimed sequence
SQL 30

SEQ 1 HSDAIFTDSY SRYRRQLAVR RYLAAVLGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 48 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-53-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-glutamyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 22: PN: WO2004048401 SEQID: 22 claimed protein
SQL 30

SEQ 1 HSDAVFTENY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 49 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-52-0 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-norleucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 17: PN: WO2004048401 SEQID: 17 claimed protein
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQXAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide
uncommon	Nle-17	-	-

L1 ANSWER 50 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-49-5 REGISTRY
CN L-Arginine, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 16: PN: WO2004048401 SEQID: 16 claimed sequence
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L1 ANSWER 51 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-42-8 REGISTRY
CN L-Argininamide, N-(1-oxooctadecyl)-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 15: PN: WO2004048401 SEQID: 15 claimed sequence
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

RELATED SEQUENCES AVAILABLE WITH SEQLINK
NTE modified (modifications unspecified)

L1 ANSWER 52 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 702686-38-2 REGISTRY
CN L-Argininamide, N-acetyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 14: PN: WO2004048401 SEQID: 14 claimed sequence
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
========== ========== =======
HITS AT: 1-27

```
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    His-1           -         N-acetyl
terminal mod.    Arg-30          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 53 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   702686-37-1  REGISTRY
CN   L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-
     phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-
     threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-
     alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-
     isoleucyl-L-leucylglycyl-L-arginyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   13: PN: WO2004048401 SEQID: 13 claimed protein
SQL  30

SEQ      1 HSDAVFTDNY TRLRRQLAVR RYLAAILGRR
           ========== ========== =======
HITS AT:   1-27

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    Arg-30          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 54 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   700368-96-3  REGISTRY
CN   L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-
     phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-
     threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-
     alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-
     valyl-L-leucylglycyl-L-arginyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   26: PN: WO2004048401 SEQID: 26 claimed protein
SQL  30

SEQ      1 HSDAVFTDNY TRLRRQLAVR RYLAAVLGRR
           ========== ========== =======
HITS AT:   1-27
NTE  modified
----------------------------------------------------------------------
 type            ------ location ------         description
----------------------------------------------------------------------
terminal mod.    Arg-30          -         C-terminal amide
----------------------------------------------------------------------

L1   ANSWER 55 OF 59  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   700368-90-7  REGISTRY
CN   L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-
     phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-
     threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-
     alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-
```

isoleucyl-L-leucylglycyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 21: PN: WO2004048401 SEQID: 21 claimed protein
CN 33: PN: JP2004315436 SEQID: 17 claimed sequence
SQL 30

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGKR
========== ========== =======
HITS AT: 1-27
NTE modified

type	------ location ------		description
terminal mod.	Arg-30	-	C-terminal amide

L1 ANSWER 56 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-87-2 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 20: PN: WO2004048401 SEQID: 20 claimed protein
CN 32: PN: JP2004315436 SEQID: 16 claimed sequence
SQL 29

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGR
========== ========== =======
HITS AT: 1-27
NTE modified

type	------ location ------		description
terminal mod.	Arg-29	-	C-terminal amide

L1 ANSWER 57 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-85-0 REGISTRY
CN L-Lysinamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 19: PN: WO2004048401 SEQID: 19 claimed protein
CN 31: PN: JP2004315436 SEQID: 15 claimed sequence
SQL 29

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILGK
========== ========== =======
HITS AT: 1-27
NTE modified

type	------ location ------		description
terminal mod.	Lys-29	-	C-terminal amide

L1 ANSWER 58 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-83-8 REGISTRY
CN Glycinamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 18: PN: WO2004048401 SEQID: 18 claimed protein
CN 30: PN: JP2004315436 SEQID: 14 claimed sequence
SQL 28

SEQ 1 HSDAVFTDNY TRLRRQLAVR RYLAAILG
========== ========== =======
HITS AT: 1-27
NTE modified

type	------ location ------		description
terminal mod.	Gly-28	-	C-terminal amide

L1 ANSWER 59 OF 59 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-81-6 REGISTRY
CN L-Aspartamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-lysyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-lysyl-L-lysyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 12: PN: WO2004048401 SEQID: 12 claimed protein
CN 28: PN: JP2004315436 SEQID: 8 claimed sequence
SQL 28

SEQ 1 HSDAVFTDNY TRLRKQLAVK KYLAAILN
========== ========== =======
HITS AT: 1-27
NTE modified

type	------ location ------		description
terminal mod.	Asn-28	-	C-terminal amide

```
=> file caplus; d que l2
FILE 'CAPLUS' ENTERED AT 16:26:29 ON 15 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 15 Aug 2007  VOL 147 ISS 8
FILE LAST UPDATED: 14 Aug 2007  (20070814/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html


L1            59 SEA FILE=REGISTRY ABB=ON  PLU=ON  HSDA[VI]FT[DEA][NS]Y[TS]R[LY]
                 R[KR]Q[L'NLE']AV[KR][KR]YLAA[IV]L|HSDA[VI]FT[DEA][NS]Y[TS]R[LY]
                 R[KR]Q[L'NLE']AV[KR][KR]YLAA[IV]LN|HSDA[VI]FT[DEA][NS]Y[TS]R[LY
                 ]R[KR]Q[L'NLE']AV[KR][KR]YLAA[IV]LG.{0-10}/SQSP
L2             4 SEA FILE=CAPLUS ABB=ON  PLU=ON  L1


=> d ibib ed ab hitrn l2

L2   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:1171442  CAPLUS  Full-text
DOCUMENT NUMBER:          143:446712
TITLE:                    Corneal neuritogenesis promoter containing PACAP and
                          its derivative
INVENTOR(S):              Takayama, Yoshiko; Nakamura, Yoshikuni; Inoue, Yutaka;
                          Yabuta, Chiho; Azuma, Mitsuyoshi; Onoue, Satomi
PATENT ASSIGNEE(S):       Senju Pharmaceutical Co., Ltd., Japan; Itoham Foods
                          Inc.
SOURCE:                   PCT Int. Appl., 65 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2005102375         A1    20051103    WO 2005-JP7609          20050421
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
```

NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2563882	A1	20051103	CA 2005-2563882		20050421
EP 1752158	A1	20070214	EP 2005-734734		20050421
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR					
CN 1997381	A	20070711	CN 2005-80020521		20050421
IN 2006CN03885	A	20070615	IN 2006-CN3885		20061023
PRIORITY APPLN. INFO.:			JP 2004-128581	A	20040423
			JP 2004-330464	A	20041115
			WO 2005-JP7609	W	20050421

OTHER SOURCE(S): MARPAT 143:446712
ED Entered STN: 04 Nov 2005
AB It is intended to provide a corneal neuritogenesis promoter containing PACAP pituitary adenylate cyclase-activating polypeptide), a PACAP derivative or a pharmaceutically acceptable salt thereof, in particular, a corneal neuritogenesis promoter aiming at improving corneal perception, treating dry eye and treating corneal epithelial injury due to an effect of promoting corneal neuritogenesis. This corneal neuritogenesis promoter is useful as a drug for ameliorating reduction in corneal perception following corneal surgeries such as laser keratonomy (LASIK) and corneal grafting or cataract surgery, reduction in corneal perception accompanying corneal neurodegeneration and dry eye symptom and corneal epithelial injury accompanying such reduction in corneal perception. Moreover, it is useful as a drug for ameliorating dry eye symptom, reduction in corneal perception and corneal epithelial injury in patients with dry eye, and a drug for ameliorating corneal epithelial injury and dry eye symptom and reduction in corneal perception accompanying therewith. For example, a peptide PACAP-27 was prepared, and examined for its effect on neuritogenesis in rabbits. Also, an eye drop containing PACAP-27 10 % was formulated.
IT 700368-81-6P 700368-83-8P 700368-85-0P
700368-87-2P 700368-90-7P 700368-96-3P
735327-72-7P 868367-65-1P 868367-70-8P
868367-71-9P 868367-72-0P 868367-73-1P
868367-91-3P 868367-93-5P 868367-97-9P
868368-02-9P 868368-03-0P 868368-04-1P
868368-05-2P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(corneal neuritogenesis promoter containing PACAP and its derivative)
IT 868579-85-5 868579-86-6 868579-89-9
868579-90-2 868579-91-3 868579-92-4
868579-94-6 868579-96-8 868579-97-9
868579-98-0 868580-00-1 868580-01-2
RL: PRP (Properties)
(unclaimed protein sequence; corneal neuritogenesis promoter containing PACAP and its derivative)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib ed ab hitrn l2 2-4

L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:957355 CAPLUS Full-text
DOCUMENT NUMBER: 141:428007
TITLE: Remedies for chronic lung disease containing VIP or PACAP-derived peptides
INVENTOR(S): Ogami, Masayoshi; Endo, Kosuke; Kashimoto, Kazuhisa
PATENT ASSIGNEE(S): Ito Ham Foods, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 60 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004315436	A	20041111	JP 2003-112096	20030416

PRIORITY APPLN. INFO.: JP 2003-112096 20030416
ED Entered STN: 11 Nov 2004
AB The invention relates to a remedy for chronic lung disease, eg.. chronic obstructive pulmonary disease and pulmonary emphysema, characterized by containing vasoactive intestinal peptide (VIP) or pituitary adenylate cyclase activating polypeptide (PACAP)-derived peptides. A peptide His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-Leu-Ala- Val-Arg-Arg-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-Gly-Lys-Arg-NH2 was prepared, and examined for its protective effect against tobacco extract-induced apoptosis of cultured L2 cells.
IT **700368-81-6P 700368-83-8P 700368-85-0P**
700368-87-2P 700368-90-7P 735327-72-7P
791908-18-4P 791908-20-8P 791908-23-1P
791908-24-2P 791908-26-4P 791908-27-5P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(remedies for chronic lung disease containing VIP or PACAP-derived peptides)

L2 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:651355 CAPLUS Full-text
DOCUMENT NUMBER: 141:185093
TITLE: PACAP and VIP peptide derivatives as antiinflammatory agents
INVENTOR(S): Yamada, Shizuo; Ogami, Masayoshi; Kashimoto, Kazuhisa
PATENT ASSIGNEE(S): Ito Ham Foods, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004224775	A	20040812	JP 2003-17909	20030127

PRIORITY APPLN. INFO.: JP 2003-17909 20030127
ED Entered STN: 13 Aug 2004
AB PACAP and VIP peptide derivs. (I) and their pharmaceutically acceptable salts in nasal drops, eyedrops, injections, and other topical prepns. are claimed as antiinflammatory agents for treatment of allergic asthma, bronchitis, conjunctivitis, autoimmune disease, atopic dermatitis etc. I were prepared,

their formulation examples were given, and their VIP receptor-binding affinity and antiinflammatory action were tested.

IT 700368-81-6P 700368-83-8P 700368-85-0P
700368-87-2P 700368-90-7P 700368-96-3P
735327-72-7P 735801-24-8P 735801-25-9P
735801-26-0P 735801-27-1P 735801-28-2P
735801-31-7P 735801-32-8P 735801-33-9P
735801-35-1P 735801-36-2P 736969-39-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PACAP and VIP peptide derivs. as antiinflammatory and antiallergic agents)

L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:467910 CAPLUS Full-text
DOCUMENT NUMBER: 141:33832
TITLE: Peptides and medicinal compositions containing the same
INVENTOR(S): Onoue, Satomi; Endo, Kousuke; Matsumoto, Asami
PATENT ASSIGNEE(S): Itoham Foods Inc., Japan
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004048401	A1	20040610	WO 2003-JP14924		20031121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2507616	A1	20040610	CA 2003-2507616		20031121
AU 2003284428	A1	20040618	AU 2003-284428		20031121
EP 1571155	A1	20050907	EP 2003-775859		20031121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
CN 1732182	A	20060208	CN 2003-80107764		20031121
US 2006276384	A1	20061207	US 2005-536880		20050527
PRIORITY APPLN. INFO.:			JP 2002-344523	A	20021127
			WO 2003-JP14924	W	20031121

ED Entered STN: 10 Jun 2004

AB Disclosed is a medicinal composition containing, as the active ingredient, a peptide derived from a PACAP peptide or a VIP peptide or a pharmaceutically acceptable salt thereof. Thus, a PACAP/VIP derivative the tautomerization of which in the state of a solution is inhibited and thus which can be clin. employed over a long period of time is provided. These peptides are efficacious in ameliorating symptoms of diseases such as regressive neurodegenerative diseases, erectile dysfunction and bronchial asthma. A peptide His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg- Arg-Gln-Leu-Ala-Val-Arg-Arg-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-Gly-Arg-Arg-NH2 (I) was prepared,

and its stability in water with various pH was tested. An inhalant powder containing I with erythritol carrier was formulated.

IT 700368-81-6P 700368-83-8P 700368-85-0P
700368-87-2P 700368-90-7P 700368-96-3P
702686-37-1P 702686-38-2P 702686-42-8P
702686-49-5P 702686-52-0P 702686-53-1P
702686-55-3P 702686-56-4P 702686-57-5P
702686-58-6P 702686-59-7P 735327-72-7P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(peptides containing PACAP/VIP derivs. and medicinal compns.)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

=> file stnguide
FILE 'STNGUIDE' ENTERED AT 16:28:32 ON 15 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug 10, 2007 (20070810/UP).

=>

=> file caplus; d que l13
FILE 'CAPLUS' ENTERED AT 17:10:22 ON 15 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 15 Aug 2007 VOL 147 ISS 8
FILE LAST UPDATED: 14 Aug 2007 (20070814/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

L4 58 SEA FILE=CAPLUS ABB=ON PLU=ON ONOUE S/AU OR ONOUE SATOMI/AU
L5 403 SEA FILE=CAPLUS ABB=ON PLU=ON ENDO K/AU OR ENDO KOUSUKE/AU
L6 247 SEA FILE=CAPLUS ABB=ON PLU=ON MATSUMOTO A/AU OR MATSUMOTO ASAMI/AU

```
L10       11429 SEA FILE=CAPLUS ABB=ON  PLU=ON  PROTEIN SEQUENCES+PFT/CT (L)
                (MEDICIN? OR THERAP? OR PHARMA?)
L11       18112 SEA FILE=CAPLUS ABB=ON  PLU=ON  PEPTIDES, BIOLOGICAL STUDIES/CT
                (L) THU/RL
L12        4827 SEA FILE=CAPLUS ABB=ON  PLU=ON  PEPTIDES, BIOLOGICAL STUDIES/CT
                (L) PAC/RL
L13           4 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L4 OR L5 OR L6) AND (L10 OR
                L11 OR L12)


=> file medline; d que l17; d que l25
FILE 'MEDLINE' ENTERED AT 17:10:47 ON 15 AUG 2007

 FILE LAST UPDATED: 14 Aug 2007 (20070814/UP). FILE COVERS 1950 TO DATE.

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


L14           36 SEA FILE=MEDLINE ABB=ON  PLU=ON  ONOUE S/AU OR ONOUE SATOMI/AU

L15         1081 SEA FILE=MEDLINE ABB=ON  PLU=ON  ENDO K/AU OR ENDO KOUSUKE/AU
L16          869 SEA FILE=MEDLINE ABB=ON  PLU=ON  MATSUMOTO A/AU OR MATSUMOTO
                ASAMI/AU
L17            0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L14 AND L15 AND L16



L14           36 SEA FILE=MEDLINE ABB=ON  PLU=ON  ONOUE S/AU OR ONOUE SATOMI/AU

L15         1081 SEA FILE=MEDLINE ABB=ON  PLU=ON  ENDO K/AU OR ENDO KOUSUKE/AU
L16          869 SEA FILE=MEDLINE ABB=ON  PLU=ON  MATSUMOTO A/AU OR MATSUMOTO
                ASAMI/AU
L20         9067 SEA FILE=MEDLINE ABB=ON  PLU=ON  VASOACTIVE INTESTINAL
                PEPTIDE/CT
L21         2070 SEA FILE=MEDLINE ABB=ON  PLU=ON  L20/MAJ (L) PD/CT
L22        14342 SEA FILE=MEDLINE ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS/CT
L23            5 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L14 OR L15 OR L16) AND L21
L24            1 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L14 OR L15 OR L16) AND L20
                AND L22
L25            6 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L23 OR L24)


=> file biosis; d que l29; d que l31
FILE 'BIOSIS' ENTERED AT 17:10:58 ON 15 AUG 2007
Copyright (c) 2007 The Thomson Corporation

FILE COVERS 1926 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 8 August 2007 (20070808/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926
through 1968.  These records have been re-indexed to match current
BIOSIS indexing.


L26           42 SEA FILE=BIOSIS ABB=ON  PLU=ON  ONOUE S/AU OR ONOUE SATOMI/AU
L27          813 SEA FILE=BIOSIS ABB=ON  PLU=ON  ENDO K/AU OR ENDO KOSUKI/AU
```

```
L28          716 SEA FILE=BIOSIS ABB=ON  PLU=ON  MATSUMOTO A/AU OR MATSUMOTO
                 ASAMI/AU
L29            2 SEA FILE=BIOSIS ABB=ON  PLU=ON  L26 AND L27 AND L28



L26           42 SEA FILE=BIOSIS ABB=ON  PLU=ON  ONOUE S/AU OR ONOUE SATOMI/AU
L27          813 SEA FILE=BIOSIS ABB=ON  PLU=ON  ENDO K/AU OR ENDO KOSUKI/AU
L28          716 SEA FILE=BIOSIS ABB=ON  PLU=ON  MATSUMOTO A/AU OR MATSUMOTO
                 ASAMI/AU
L30          953 SEA FILE=BIOSIS ABB=ON  PLU=ON  PEPTIDE/TI AND DRUG DELIVERY
L31            3 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L26 OR L27 OR L28) AND L30


=> s l29 or l31
L50            3 L29 OR L31

=> file embase; d que l49
FILE 'EMBASE' ENTERED AT 17:11:23 ON 15 AUG 2007
Copyright (c) 2007 Elsevier B.V. All rights reserved.

 FILE COVERS 1974 TO 15 Aug 2007 (20070815/ED)

 EMBASE is now updated daily.  SDI frequency remains weekly (default)
 and biweekly.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


L33           51 SEA FILE=EMBASE ABB=ON  PLU=ON  ONOUE S/AU
L34         1139 SEA FILE=EMBASE ABB=ON  PLU=ON  ENDO K/AU
L35         1018 SEA FILE=EMBASE ABB=ON  PLU=ON  MATSUMOTO A/AU
L36            3 SEA FILE=EMBASE ABB=ON  PLU=ON  L33 AND L34 AND L35
L38         5489 SEA FILE=EMBASE ABB=ON  PLU=ON  VASOACTIVE INTESTINAL PEPTIDE
L39        34336 SEA FILE=EMBASE ABB=ON  PLU=ON  DRUG DELIVERY SYSTEM
L40           12 SEA FILE=EMBASE ABB=ON  PLU=ON  (L33 OR L34) AND L38
L41            7 SEA FILE=EMBASE ABB=ON  PLU=ON  (L33 OR L34) AND L39
L49           12 SEA FILE=EMBASE ABB=ON  PLU=ON  (L36 OR L40 OR L41) AND
                 (ADENYLATE CYCLASE ACTIVATING  OR VASOACTIVE INTESTINAL OR VIP
                 OR PACAP)


=> file wpix; d que l46
FILE 'WPIX' ENTERED AT 17:11:33 ON 15 AUG 2007
COPYRIGHT (C) 2007 THE THOMSON CORPORATION

FILE LAST UPDATED:                          14 AUG 2007   <20070814/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE:     200752      <200752/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> Now containing more than 1 million chemical structures in DCR <<<

>>> IPC Reform backfile reclassification has been loaded to 31 May
    2007. No update date (UP) has been created for the reclassified
    documents, but they can be identified by 20060101/UPIC and
    20061231/UPIC and 20060601/UPIC. <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
```

http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://scientific.thomson.com/support/patents/coverage/latestupdates/

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX
PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

```
L42           39 SEA FILE=WPIX ABB=ON  PLU=ON  ONOUE S/AU
L43         5312 SEA FILE=WPIX ABB=ON  PLU=ON  ENDO K/AU
L44         2587 SEA FILE=WPIX ABB=ON  PLU=ON  MATSUMOTO A/AU
L46            1 SEA FILE=WPIX ABB=ON  PLU=ON  L42 AND L43 AND L44


=> d que l48
L42           39 SEA FILE=WPIX ABB=ON  PLU=ON  ONOUE S/AU
L43         5312 SEA FILE=WPIX ABB=ON  PLU=ON  ENDO K/AU
L44         2587 SEA FILE=WPIX ABB=ON  PLU=ON  MATSUMOTO A/AU
L45         7930 SEA FILE=WPIX ABB=ON  PLU=ON  (L42 OR L43 OR L44)
L47          897 SEA FILE=WPIX ABB=ON  PLU=ON  ADENYLATE CYCLASE ACTIVATING  OR
                 VASOACTIVE INTESTINAL OR VIP OR PACAP
L48            5 SEA FILE=WPIX ABB=ON  PLU=ON  L45 AND L47


=> s l46 or l48
L51            5 L46 OR L48

=> dup rem l25 l13 l50 l49 l51
FILE 'MEDLINE' ENTERED AT 17:12:48 ON 15 AUG 2007

FILE 'CAPLUS' ENTERED AT 17:12:48 ON 15 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 17:12:48 ON 15 AUG 2007
Copyright (c) 2007 The Thomson Corporation

FILE 'EMBASE' ENTERED AT 17:12:48 ON 15 AUG 2007
Copyright (c) 2007 Elsevier B.V. All rights reserved.

FILE 'WPIX' ENTERED AT 17:12:48 ON 15 AUG 2007
COPYRIGHT (C) 2007 THE THOMSON CORPORATION
PROCESSING COMPLETED FOR L25
PROCESSING COMPLETED FOR L13
PROCESSING COMPLETED FOR L50
PROCESSING COMPLETED FOR L49
PROCESSING COMPLETED FOR L51
L52           20 DUP REM L25 L13 L50 L49 L51 (10 DUPLICATES REMOVED)
                 ANSWERS '1-6' FROM FILE MEDLINE
                 ANSWERS '7-10' FROM FILE CAPLUS
                 ANSWERS '11-12' FROM FILE BIOSIS
                 ANSWERS '13-18' FROM FILE EMBASE
                 ANSWERS '19-20' FROM FILE WPIX

=> d ibib ed ab l52 1-18; d ibib ab abex l52 19-20

L52  ANSWER 1 OF 20     MEDLINE on STN                  DUPLICATE 1
```

ACCESSION NUMBER: 2006297910 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16458931
TITLE: Development of dry powder inhalation system of novel vasoactive intestinal peptide (VIP) analogue for pulmonary administration.
AUTHOR: Ohmori Yuki; **Onoue Satomi**; Endo Kosuke; **Matsumoto Asami**; Uchida Shinya; Yamada Shizuo
CORPORATE SOURCE: Department of Pharmacokinetics and Pharmacodynamics and COE Program in the 21st Century, School of Pharmaceutical Sciences, University of Shizuoka, 52-1 Yada, Shizuoka 422-8526, Japan.
SOURCE: Life sciences, (2006 Jun 6) Vol. 79, No. 2, pp. 138-43. Electronic Publication: 2006-02-03. Journal code: 0375521. ISSN: 0024-3205.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200607
ENTRY DATE: Entered STN: 27 May 2006
Last Updated on STN: 4 Jul 2006
Entered Medline: 3 Jul 2006

ED Entered STN: 27 May 2006
Last Updated on STN: 4 Jul 2006
Entered Medline: 3 Jul 2006

AB Vasoactive intestinal peptide (VIP) exerts a relaxing action on tracheal smooth muscle which is mediated through interaction with VIP receptors. The deficiency of VIP in the airways has been implicated in the pathogenesis of asthma. Thus, the administration of VIP may be useful for the therapy of pulmonary diseases. However, the therapeutic application of VIP is largely limited by its rapid degradation in addition to the systemic adverse effects due to the wide distribution of VIP receptors. To overcome these problems, we succeeded to synthesize a novel VIP derivative of VIP, [R15, 20, 21, L17]-VIP-GRR (IK312532), and to prepare its dry powder for the topical administration to the lung. The physicochemical properties of dry powder were evaluated by laser diffraction and cascade impactor. The laser diffraction analysis indicated that the carrier and fine particles had median diameter of 65.6 and 4.5 microm, respectively, and the air flow at the pressure of 0.15 MPa or higher resulted in the high dispersion and significant separation of fine particle containing peptide from the carrier molecule. The cascade impactor analysis clearly showed the high emission of dry powder from capsule and the deposition of peptide on stages 3 of the cascade impactor. The intratracheal administration of dry powder inhaler (DPI) of VIP or IK312532 brought about a significant decrease of maximal number of binding sites (Bmax) for [125I]VIP in anterior and posterior lobes of rat right lung, suggesting a significant occupancy of lung VIP receptors. This effect by IK312532-DPI compared with VIP-DPI lasted for a longer period. Thus, IK312532-DPI may be a pharmacologically useful drug delivery system for the VIP therapy of pulmonary diseases such as asthma.

L52 ANSWER 2 OF 20 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2004200126 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15096214
TITLE: Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells.
AUTHOR: Onoue Satomi; Ohmori Yuki; Endo Kosuke; Yamada Shizuo; Kimura Ryohei; Yajima Takehiko

CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., Moriya, Ibaraki, Japan.. onoue@fureai.or.jp
SOURCE: European journal of biochemistry / FEBS, (2004 May) Vol. 271, No. 9, pp. 1757-67.
Journal code: 0107600. ISSN: 0014-2956.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200405
ENTRY DATE: Entered STN: 21 Apr 2004
Last Updated on STN: 28 May 2004
Entered Medline: 27 May 2004
ED Entered STN: 21 Apr 2004
Last Updated on STN: 28 May 2004
Entered Medline: 27 May 2004

AB Chronic obstructive pulmonary disease is a major clinical disorder usually associated with cigarette smoking. A central feature of chronic obstructive pulmonary disease is inflammation coexisting with an abnormal protease/antiprotease balance, leading to apoptosis and elastolysis. In an in vitro study of rat lung alveolar L2 cells, cigarette smoke extract (CSE) induced apoptotic cell death. Exposure of L2 cells to CSE at a concentration of 0.25% resulted in a 50% increase of caspase-3 and matrix metalloproteinase (MMP) activities. Specific inhibitors for caspases and MMPs attenuated the cytotoxicity of CSE. RT-PCR amplification identified VPAC2 receptors in L2 cells. A radioligand-binding assay with (125)I-labeled vasoactive intestinal peptide (VIP) found high affinity and saturable (125)I-labeled VIP-binding sites in L2 cells. VIP and pituitary adenylate cyclase-activating polypeptide (PACAP27) were approximately equipotent for both VIP receptor binding and stimulation of cAMP production in L2 cells. Both neuropeptides, at concentrations higher than 10(-13) m, produced a concentration-dependent inhibition of CSE-induced cell death in L2 cells. VIP, at 10(-7) m, reduced CSE-stimulated MMP activity and caspase-3 activation. The present study has shown that VIP and PACAP27 significantly attenuate the cytotoxicity of CSE through the activation of VPAC2 receptor, and the protective effect of VIP may partly be the result of a reduction in the CSE-induced stimulation of MMPs and caspases.

L52 ANSWER 3 OF 20 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2004056378 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 14757155
TITLE: Alpha-helical structure in the C-terminus of vasoactive intestinal peptide: functional and structural consequences.
AUTHOR: Onoue Satomi; Matsumoto Asami; Nagano Yumiko; Ohshima Keiichi; Ohmori Yuki; Yamada Shizuo; Kimura Ryohei; Yajima Takehiko; Kashimoto Kazuhisa
CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., 1-2-1 Kubogaoka, Moriya, Ibaraki 302-0104, Japan.. onoue@fureai.or.jp
SOURCE: European journal of pharmacology, (2004 Feb 6) Vol. 485, No. 1-3, pp. 307-16.
Journal code: 1254354. ISSN: 0014-2999.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200410

ENTRY DATE: Entered STN: 4 Feb 2004
Last Updated on STN: 6 Oct 2004
Entered Medline: 5 Oct 2004
ED Entered STN: 4 Feb 2004
Last Updated on STN: 6 Oct 2004
Entered Medline: 5 Oct 2004
AB The conformational properties of vasoactive intestinal peptide (VIP) include the N-terminal randomized structure and the C-terminal long alpha-helical structure. We have previously observed that the N-terminal random coil structure plays a crucial role in the receptor-selectivity. Here, to clarify how the formation of the alpha-helix plays a role in its biological functions, we chemically synthesized VIP analogues modified at the C-terminus, mid-chain, and N-terminus of the alpha-helical region, and evaluated the relationship between their alpha-helical contents and their biological activities including relaxant effects on murine stomach and receptor-binding activities. VIP and VIP-(1-27) showed equipotent biological activities with 48% and 50% alpha-helical content, respectively, each of which corresponds to 14 amino acid residues. VIP-(1-26) was 10% and threefold less potent in relaxant and binding activities, respectively, compared with VIP, and its 49% alpha-helical content resulted in 13 residues involved in the alpha-helix. Further truncation from 25 to 21 resulted in decrease in the alpha-helical content from 43% to 29%, corresponding residues from 11 to 6, the relaxant activity from 72% to 4%, and the affinity to the membrane from 60-fold to over 10(4)-fold less potency. In addition, disruption of the mid-chain and the N-terminus in the alpha-helical stretch by oxidation of Met(17) and deletion of Thr(11) also inhibited biological activities. These findings suggest that the presence of alpha-helical structure forming in 14 amino acid residues between position 10 and 23 in VIP is essential to its biological functions and the C-terminal amino acid residues between position 24 and 27 are requisite for this alpha-helical formation.

L52 ANSWER 4 OF 20 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2004548765 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15518913
TITLE: Pharmacological effects and lung-binding characteristics of a novel VIP analogue, [R15, 20, 21, L17]-VIP-GRR (IK312532).
AUTHOR: Ohmori Yuki; Maruyama Shuji; Kimura Ryohei; **Onoue Satomi**; **Matsumoto Asami**; Endo Kosuke; Iwanaga Toshihiko; Kashimoto Kazuhisa; Yamada Shizuo
CORPORATE SOURCE: Department of Biopharmaceutical Sciences and COE Program in the 21st Century, School of Pharmaceutical Sciences, University of Shizuoka, 52-1 Yada, Shizuoka 422-8526, Japan.
SOURCE: Regulatory peptides, (2004 Dec 15) Vol. 123, No. 1-3, pp. 201-7.
Journal code: 8100479. ISSN: 0167-0115.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200503
ENTRY DATE: Entered STN: 3 Nov 2004
Last Updated on STN: 1 Apr 2005
Entered Medline: 31 Mar 2005
ED Entered STN: 3 Nov 2004
Last Updated on STN: 1 Apr 2005
Entered Medline: 31 Mar 2005

AB A novel VIP derivative, [R15, 20, 21, L17]-VIP-GRR (IK312532), relaxed potently the carbachol-induced contraction of guinea-pig isolated trachea with longer duration than that induced by VIP. IK312532 competed with [125I]VIP for the binding sites in the rat lung in a concentration- dependent manner. There was considerable decrease in specific [125I]VIP binding in each lobe of right and left lung 0.5 h after the intratracheal administration of IK312532 (50 microg/rat) as dry powder inhaler (DPI). Rosenthal analysis revealed that the administration of IK312532 (50 and 100 microg/rat)-DPI brought about a significant decrease of maximal number of binding sites (Bmax) for specific [125I]VIP binding in anterior and posterior lobes of rat right lung, suggesting a significant occupancy of lung VIP receptors. This effect by IK312532 in the posterior lobe of the right lung was dose-dependent and lasted until at least 2 h after the intratracheal administration. Furthermore, the antigen-evoked infiltration of granulocytes in the rat bronchiolar mucosa was markedly suppressed by the intratracheal administration of IK312532 (50 microg/rat)-DPI. In conclusion, the present study has shown that IK312532 exhibits long-lasting relaxation of tracheal smooth muscles and that the intratracheal administration of this peptide exerts a significant occupancy of lung VIP receptors as well as a suppression of the antigen-evoked infiltration of granulocytes in the bronchiolar mucosa. Thus, the formulation of IK312532 as DPI may be a pharmacologically useful drug delivery system for the therapy of pulmonary diseases such as asthma.

L52 ANSWER 5 OF 20 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2004548764 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15518912
TITLE: Long-acting analogue of vasoactive intestinal peptide, [R15, 20, 21, L17]-VIP-GRR (IK312532), protects rat alveolar L2 cells from the cytotoxicity of cigarette smoke.
AUTHOR: Onoue Satomi; Endo Kosuke; Ohmori Yuki; Yamada Shizuo; Kimura Ryohei; Yajima Takehiko; Kashimoto Kazuhisa
CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., 1-2-1 Kubogaoka, Moriya, Ibaraki 302-0104, Japan.. onoue@fureai.or.jp
SOURCE: Regulatory peptides, (2004 Dec 15) Vol. 123, No. 1-3, pp. 193-9.
Journal code: 8100479. ISSN: 0167-0115.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200503
ENTRY DATE: Entered STN: 3 Nov 2004
Last Updated on STN: 1 Apr 2005
Entered Medline: 31 Mar 2005
ED Entered STN: 3 Nov 2004
Last Updated on STN: 1 Apr 2005
Entered Medline: 31 Mar 2005
AB Vasoactive intestinal peptide (VIP) and pituitary adenylate cyclase-activating polypeptide (PACAP) act as neurotransmitters in numerous biological responses. We previously reported that the replacement of Lys by Arg, and Met by Leu in VIP (IK312532; [Arg15, 20, 21, Leu17]-VIP) resulted in a significant improvement in metabolic stability and biological activity. In the present study, we investigated the effect of VIP and its related peptides including long-acting VIP derivative (IK312532) and PACAP27 on the cytotoxicity of cigarette smoke extract (CSE), a causative factor of chronic obstructive pulmonary disease (COPD), in rat alveolar L2 cells. RT-PCR displayed the dominant expression of mRNA for the VIP-specific VPAC2 receptor in L2 cells, and VIP and the related peptides showed the specific binding activity and

potent stimulation of adenylate cyclase. CSE at a concentration of 0.1% or higher induced significant apoptotic death of L2 cells. Interestingly, the addition of neuropeptides at a concentration of 10(-11) M or higher in L2 cells with CSE (0.25%) resulted in significant attenuation of cell death with the deactivation of CSE-evoked caspase-3 activity. IK312532 was much stable against the enzymatic digestion compared to VIP, and the protective effect of IK312532 was 1.6-fold higher than that of VIP. Taken together with our previous report showing that IK312532 has long-acting relaxant activity in the lung, IK312532 may be a potential candidate for drug treatment of asthma and COPD.

L52 ANSWER 6 OF 20 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2002389776 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12137965
TITLE: Pituitary adenylate cyclase-activating polypeptide and vasoactive intestinal peptide attenuate glutamate-induced nNOS activation and cytotoxicity.
AUTHOR: Onoue Satomi; Endo Kosuke; Yajima Takehiko; Kashimoto Kazuhisa
CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., Ibaraki 302-0104, Moriya, Japan.
SOURCE: Regulatory peptides, (2002 Jul 15) Vol. 107, No. 1-3, pp. 43-7.
Journal code: 8100479. ISSN: 0167-0115.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200302
ENTRY DATE: Entered STN: 25 Jul 2002
Last Updated on STN: 14 Feb 2003
Entered Medline: 13 Feb 2003
ED Entered STN: 25 Jul 2002
Last Updated on STN: 14 Feb 2003
Entered Medline: 13 Feb 2003
AB Both vasoactive intestinal peptide (VIP) and pituitary adenylate cyclase-activating polypeptide (PACAP) act as neurotransmitters in the central and peripheral nervous systems. Attention has been focused on these neuropeptides because among their numerous biological activities, they have been confirmed to show neuroprotective effects against ischemia and glutamate-induced cytotoxicity. It is well established that glutamate has excitatory effects on neuronal cells, and that excessive glutamate shows potent neurotoxicity, especially in neuronal nitric oxide synthase-containing neurons. Glutamate stimulates the production of nitric oxide (NO) in neurons, and the NO generated is tightly associated with the delayed death of neurons. We examined the effects of these neuropeptides on the glutamate-induced neural actions using PC12 cells, and we confirmed the important activities of PACAP/VIP on the production of NO as well as the delayed cell death stimulated by glutamate.

L52 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2004:467910 CAPLUS Full-text
DOCUMENT NUMBER: 141:33832
TITLE: Peptides and medicinal compositions containing the same
INVENTOR(S): Onoue, Satomi; Endo, Kousuke; Matsumoto, Asami
PATENT ASSIGNEE(S): Itoham Foods Inc., Japan

SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004048401	A1	20040610	WO 2003-JP14924	20031121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2507616	A1	20040610	CA 2003-2507616	20031121
AU 2003284428	A1	20040618	AU 2003-284428	20031121
EP 1571155	A1	20050907	EP 2003-775859	20031121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1732182	A	20060208	CN 2003-80107764	20031121
US 2006276384	A1	20061207	US 2005-536880	20050527
PRIORITY APPLN. INFO.:			JP 2002-344523 A	20021127
			WO 2003-JP14924 W	20031121

ED Entered STN: 10 Jun 2004

AB Disclosed is a medicinal composition containing, as the active ingredient, a peptide derived from a PACAP peptide or a VIP peptide or a pharmaceutically acceptable salt thereof. Thus, a PACAP/VIP derivative the tautomerization of which in the state of a solution is inhibited and thus which can be clin. employed over a long period of time is provided. These peptides are efficacious in ameliorating symptoms of diseases such as regressive neurodegenerative diseases, erectile dysfunction and bronchial asthma. A peptide His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg- Arg-Gln-Leu-Ala-Val-Arg-Arg-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-Gly-Arg-Arg-NH2 (I) was prepared, and its stability in water with various pH was tested. An inhalant powder containing I with erythritol carrier was formulated.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 7
ACCESSION NUMBER: 2003:376664 CAPLUS Full-text
DOCUMENT NUMBER: 138:374204
TITLE: Remedies for dry eye and diseases associated with dry eye containing specified peptides
INVENTOR(S): Minagawa, Yoko; Fujii, Atsuko; Yoshida, Yukuo; Onoue, Satomi; Kashimoto, Kazuhisa
PATENT ASSIGNEE(S): Senju Pharmaceutical Co., Ltd., Japan; Itoham Foods Inc.
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003039577	A1	20030515	WO 2002-JP11490	20021105
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002343861	A1	20030519	AU 2002-343861	20021105
EP 1462112	A1	20040929	EP 2002-775494	20021105
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1612748	A	20050504	CN 2002-826827	20021105
US 2004259796	A1	20041223	US 2004-494634	20040527
PRIORITY APPLN. INFO.:			JP 2001-340355 A	20011106
			WO 2002-JP11490 W	20021105

OTHER SOURCE(S): MARPAT 138:374204
ED Entered STN: 16 May 2003
AB Disclosed are remedies for dry eye and diseases associated with dry eye which contain as the active ingredient peptides represented by the following general formula H-His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg- X1-Gln-X2-Ala-Val-X3-X4-Tyr-Leu-X5-X6 wherein X1, X3 and X4 represent each Lys or Arg; X2represents Met, Leu or nLeu; X5 represents a chemical bond, Asn, Asn-Ser, Asn-Ser-Ile, Asn-Ser-Ile-Leu or Asn-Ser-Ile-Leu-Asn-X7 (wherein X7 represents a chemical bond, Gly, etc.); and X6 represents -OH or -NH2, or pharmaceutically acceptable salts thereof. A peptide His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-Leu-Ala- Val-Arg-Arg-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-Gly-Arg-Arg (I) was prepared, and its effect on tear secretion promotion in rabbit was examined An eye drop containing the peptide I 2, NaCl 0.9, boric acid 0.1, borax q.s. to pH 7.8, benzalkonium chloride 0.005, sodium edetate 0.02 g, and water balance to 100 mL was also formulated.
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 2002:428689 CAPLUS Full-text
DOCUMENT NUMBER: 136:406898
TITLE: Powdery compositions and process for producing the same
INVENTOR(S): **Onoue, Satomi; Endo, Kousuke;** Kashimoto, Kazuhisa
PATENT ASSIGNEE(S): Itoham Foods Inc., Japan
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043703	A1	20020606	WO 2001-JP10445	20011129
W: AU, CA, CN, IN, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

JP 2002284703	A	20021003	JP 2001-88337		20010326
CA 2430318	A1	20020606	CA 2001-2430318		20011129
AU 200218503	A	20020611	AU 2002-18503		20011129
JP 2003034652	A	20030207	JP 2001-364325		20011129
EP 1348428	A1	20031001	EP 2001-998330		20011129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR					
US 2004109827	A1	20040610	US 2003-432352		20030529
IN 2003CN01013	A	20050422	IN 2003-CN1013		20030626
PRIORITY APPLN. INFO.:			JP 2000-362704	A	20001129
			JP 2001-88337	A	20010326
			JP 2001-364325	A	20011129
			WO 2001-JP10445	W	20011129

ED Entered STN: 07 Jun 2002

AB Disclosed are powdery compns. obtained by mixing fine particles containing a powdery drug and a filler and having an average particle size of ≤ 20 μm with a carrier having an aerodynamically acceptable particle size. These prepns. can be easily handled in manufacturing and sustain a constant drug content due to the improved dispersibility. A powder composition containing glucagon, erythritol, and lactose was prepared, and evaluated as a dry powder inhalant.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:692586 CAPLUS Full-text

DOCUMENT NUMBER: 138:265127

TITLE: Interaction of antithrombin III-binding domain in heparins with novel heparin binding peptides

AUTHOR(S): **Onoue, Satomi**; Nemoto, Yoshitaka; Mizumoto, Takahiro; Harada, Sunao; Yajima, Takehiko; Kashimoto, Kazuhisa

CORPORATE SOURCE: Health Science Division, ITOHAM FOODS INC, Moriya, Ibaraki, 302-0104, Japan

SOURCE: Peptides: The Wave of the Future, Proceedings of the Second International and the Seventeenth American Peptide Symposium, San Diego, CA, United States, June 9-14, 2001 (2001), 778-779. Editor(s): Lebl, Michal; Houghten, Richard A. American Peptide Society: San Diego, Calif.
CODEN: 69DBAL; ISBN: 0-9715560-0-8

DOCUMENT TYPE: Conference

LANGUAGE: English

ED Entered STN: 13 Sep 2002

AB The structure-activity relation of synthetic heparin binding peptides (HBPs) was elucidated. Heparin showed a strong inhibition of factor Xa in the blood coagulation cascade, and the addition of HBPs gave a significant protection of factor Xa activity. This indicates that HBPs have an inhibitory effect on heparin binding to antithrombin III. HBPs without antithrombin III exhibited no effect on factor Xa activity. A new analog of HBP-4 having strong inhibitory effects on the anti-factor Xa activity of heparins and high binding potency to heparins was obtained.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 11 OF 20 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:433739 BIOSIS Full-text

DOCUMENT NUMBER: PREV200300433739

TITLE: Pharmacological usefulness of dry powder inhaler of a novel vasoactive intestinal **peptide** (VIP) analogue as

anti-asthma agent.
AUTHOR(S): Ohmori, Y. [Reprint Author]; Yamada, S. [Reprint Author]; Kimura, R. [Reprint Author]; Onoue, S.; Matsumoto, A.; Endo, K.; Iwanaga, T.; Kashimoto, K.
CORPORATE SOURCE: Sch. Pharm. Sci. and COE21, Univ. of Shizuoka, Shizuoka, Japan
SOURCE: Regulatory Peptides, (15 August 2003) Vol. 115, No. 1, pp. 52. print.
Meeting Info.: 6th International Symposium on VIP, PACAP and Related Peptides. Hakone, Japan. September 01-04, 2003.
ISSN: 0167-0115 (ISSN print).
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Sep 2003
Last Updated on STN: 17 Sep 2003
ED Entered STN: 17 Sep 2003
Last Updated on STN: 17 Sep 2003

L52 ANSWER 12 OF 20 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:557424 BIOSIS Full-text
DOCUMENT NUMBER: PREV200200557424
TITLE: Development of a new derivative of vasoactive intestinal peptide and its novel administration system, dry powder inhalation.
AUTHOR(S): Endo, K. [Reprint author]; Onoue, S. [Reprint author]; Amikawa, S. [Reprint author]; Matsumoto, A. [Reprint author]; Waki, Y. [Reprint author]; Yamanaka, M. [Reprint author]; Kondo, M. [Reprint author]; Hamanaka, K. [Reprint author]; Suitani, Y. [Reprint author]; Kashimoto, K. [Reprint author]
CORPORATE SOURCE: Health Science Div., Itoham Food Inc., 1-2-1 Kubogaoka, Moriya, Ibaraki, 302-0104, Japan
SOURCE: Journal of Peptide Science, (2002) Vol. 8, No. Supplement, pp. S214. print.
Meeting Info.: 27th European Peptide Symposium. Sorrento, Italy. August 31-September 06, 2002.
ISSN: 1075-2617.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 30 Oct 2002
Last Updated on STN: 30 Oct 2002
ED Entered STN: 30 Oct 2002
Last Updated on STN: 30 Oct 2002

L52 ANSWER 13 OF 20 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004027862 EMBASE Full-text
TITLE: Structure-activity relationship of synthetic truncated analogues of vasoactive intestinal peptide (VIP): An enhancement in the activity by a substitution with arginine.
AUTHOR: Onoue S.; Ohmori Y.; Matsumoto A.; Yamada S.; Kimura R.; Yajima T.; Kashimoto K.
CORPORATE SOURCE: S. Yamada, Sch. Pharmaceutical Sci. and COE21, University of Shizuoka, 52-1 Yada, Shizuoka 422-8526, Japan.

yamada@ys7.u-shizuoka-ken.ac.jp
SOURCE: Life Sciences, (6 Feb 2004) Vol. 74, No. 12, pp. 1465-1477.
Refs: 41
ISSN: 0024-3205 CODEN: LIFSAK
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 29 Jan 2004
Last Updated on STN: 29 Jan 2004
ED Entered STN: 29 Jan 2004
Last Updated on STN: 29 Jan 2004
AB In order to develop potent shortened analogues of vasoactive intestinal **peptide** (**VIP**), the structure-activity relationship of C-terminally truncated analogues of **VIP** was investigated by examining the binding activity to rat lung **VIP** receptors and relaxation of smooth muscle in isolated mouse stomach. **VIP**(1-27) showed **VIP** receptor binding activity comparable to that of **VIP** but the activity of **VIP**(1-26) was reduced to one-third of **VIP**. The receptor binding activity of **VIP**(1-26) to **VIP**(1-23) was reduced in proportion to the decrease in amino acid residues. There was a significant correlation between the number of amino acid residues and **VIP** receptor binding activities of **VIP** and its C-terminally truncated analogues. **VIP**(1-22) and **VIP** (1-21) exhibited little binding activity even at high concentrations, suggesting the requisite of 23 amino acid residues as the minimal essential sequence for the conservation of **VIP** receptor binding activity. The chemical modification of **VIP**(1-23) generated a potent analogue, [Arg(15, 20, 21), Leu(17)]-**VIP**(1-23), that displayed a 22-fold higher receptor binding activity and 1.6-fold more potent relaxation of mouse stomach than **VIP**(1-23) did. In conclusion, it was shown that [Arg(15, 20, 21), Leu(17)]-**VIP** (1-23) could be a relatively potent and stable agonist of **VIP** receptors. The present study has provided further insight into the structure-activity relationship of **VIP** to generate novel shortened VIP analogues having a high affinity to VIP receptors and potent pharmacological activity. .COPYRGT. 2003 Elsevier Inc. All rights reserved.

ACCESSION NUMBER: 2002381412 EMBASE Full-text
TITLE: The neuropeptide **PACAP** attenuates β-amyloid (1-42)-induced toxicity in PC12 cells.
AUTHOR: **Onoue S.**; **Endo K.**; Ohshima K.; Yajima T.; Kashimoto K.
CORPORATE SOURCE: S. Onoue, Health Science Division, Central Res. Inst. Itoham Foods Inc., 1-2-1 Kubogaoka, Moriya, Ibaraki 302-0104, Japan. onoue@fureai.or.jp
SOURCE: Peptides, (2002) Vol. 23, No. 8, pp. 1471-1478. .
Refs: 46
ISSN: 0196-9781 CODEN: PEPTDO
PUBLISHER IDENT.: S 0196-9781(02)00085-2
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 008 Neurology and Neurosurgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 14 Nov 2002

Last Updated on STN: 14 Nov 2002
ED Entered STN: 14 Nov 2002
Last Updated on STN: 14 Nov 2002
AB Pituitary **adenylate cyclase activating** polypeptide (**PACAP**) modulates neurotransmission in the central and peripheral nervous systems. In vitro and in vivo studies have shown the protective effects of **PACAP** against neuronal damage induced by ischemia and agonists of NMDA-type glutamate receptors. Here, we demonstrated that **PACAP** also protected against neuronal toxicity induced by β-amyloid (Aβ) peptide, aggregation of which is a causative factor for Alzheimer's disease. **PACAP** (10(-9)M) rescued 80% of decreased cell viability and 50% of elevated caspase-3 activity that resulted from exposure of PC12 cells to Aβ. **PACAP** was at least 10(4)-fold more effective than other neuropeptides including **vasoactive intestinal peptide** (**VIP**) and humanin, which correlated with the level of cAMP accumulation. Thus, our results suggested that **PACAP** attenuates Aβ-induced cell death in PC12 cells through an increase in cAMP and that caspase-3 deactivation by **PACAP** is involved in the signaling pathway for this neuroprotection.

L52 ANSWER 15 OF 20 EMBASE
ACCESSION NUMBER: 2002200577 EMBASE Full-text
TITLE: Pituitary **adenylate cyclase activating** polypeptide regulates the basal production of nitric oxide in PC12 cells.
AUTHOR: **Onoue S.**; **Endo K.**; Yajima T.; Kashimoto K.
CORPORATE SOURCE: S. Onoue, Health Science Division, Itoham Foods Inc., 1-2 Kubogaoka, Moriya, Ibaraki 302-0104, Japan. onoue@fureai.or.jp
SOURCE: Life Sciences, (31 May 2002) Vol. 71, No. 2, pp. 205-214. . Refs: 40
ISSN: 0024-3205 CODEN: LIFSAK
PUBLISHER IDENT.: S 0024-3205(02)01639-9
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20 Jun 2002
Last Updated on STN: 20 Jun 2002
ED Entered STN: 20 Jun 2002
Last Updated on STN: 20 Jun 2002
AB **Vasoactive intestinal peptide** (**VIP**) and pituitary **adenylate cyclase-activating** polypeptide (**PACAP**), two members of the **VIP** /secretin/glucagon family, modulate neurotransmission via stimulation of protein kinases including cAMP-dependent protein kinase (PKA) and protein kinase C (PKC) in the central and peripheral nervous systems. They are reported to co-exist with nitric oxide synthases (NOSs) and other neuropeptides within the nervous system and peripheral tissues. In the present study, we investigated the neuronal role of these peptides in NO production in PC12 cells. We showed that **PACAP** decreased NO production in a dose-dependent manner, and the activators of protein kinase A and C also inhibited the NO production in PC12 cells. RT-PCR experiments demonstrated that PC12 cells constitutively express the mRNAs for neuronal NOS and the **PACAP**-specific (PAC1) receptor, and we concluded that **PACAP** plays an important role in the regulation of nNOS

activity through PAC1 receptor in PC12 cells. .COPYRGT. 2002 Elsevier Science Inc. All rights reserved.

L52 ANSWER 16 OF 20 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003013902 EMBASE Full-text
TITLE: Differences in biological activity between PACAP27 and VIP in PC12 cells depend on their N-terminal structures.
AUTHOR: **Onoue S.**; Nagano Y.; **Endo K.**; Yajima T.; Kashimoto K.
CORPORATE SOURCE: S. Onoue, Health Science Division, Itohan Foods Inc., 1-2-1 Moriya, Ibaraki 302-0104, Japan. onoue@fureai.or.jp
SOURCE: Pharmacology Reviews and Communications, (2002) Vol. 12, No. 4, pp. 205-213. .
Refs: 19
ISSN: 1028-8945 CODEN: PHRCF6
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 29 Jan 2003
Last Updated on STN: 29 Jan 2003

ED Entered STN: 29 Jan 2003
Last Updated on STN: 29 Jan 2003

AB The functions of pituitary **adenylate cyclase**- activating polypeptide (PACAP) and **vasoactive intestinal peptide** (VIP) are thought to be exerted through the activation of three types of **PACAP**/ **VIP** receptors: PAC1, VPAC1 and VPAC2 receptors. In neuronal tissues, these neuropeptides bind specifically to the **PACAP** -specific (PAC1) receptor and stimulate cAMP accumulation, and **PACAP** is approximately 10(3)-fold more potent than **VIP** in these activities mediated through PAC1 receptor. In this study, we prepared a series of chimeric peptides in which the N-terminal residues of PACAP27/**VIP** replaced each other. We investigated the effects of these chimeric peptides on the activities of adenylate cyclase and nitric oxide synthase in neuron-like PC12 cells. N-terminal substitution between PACAP27 and **VIP** significantly affected the biological activity, whereas it showed no significant effect on the C-terminal α-helical structure of PACAP27/VIP. These results suggested that the random N-terminal structures in PACAP27/**VIP** play important roles in their activities and receptor specificity.

L52 ANSWER 17 OF 20 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2002239396 EMBASE Full-text
TITLE: **PACAP** protects neuronal PC12 cells from the cytotoxicity of human prion protein fragment 106-126.
AUTHOR: Onoue S.; Ohshima K.; **Endo K.**; Yajima T.; Kashimoto K.
CORPORATE SOURCE: S. Onoue, Health Science Division, Itoham Foods Inc., Moriya, Ibaraki 302-0104, Japan. onoue@fureai.or.jp
SOURCE: FEBS Letters, (3 Jul 2002) Vol. 522, No. 1-3, pp. 65-70. .
Refs: 27
ISSN: 0014-5793 CODEN: FEBLAL
PUBLISHER IDENT.: S 0014-5793(02)02886-7
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 18 Jul 2002
Last Updated on STN: 18 Jul 2002
ED Entered STN: 18 Jul 2002
Last Updated on STN: 18 Jul 2002
AB Misfolding of the prion protein yields amyloidogenic isoforms, and it shows exacerbating neuronal damage in neurodegenerative disorders including prion diseases. Pituitary adenylate cyclase -activating polypeptide (PACAP) and vasoactive intestinal peptide (VIP) potently stimulate neuritogenesis and survival of neuronal cells in the central nervous system. Here, we tested these neuropeptides on neurotoxicity in PC12 cells induced by the prion protein fragment 106-126 [PrP (106-126)]. Concomitant application of neuropeptide with PrP(106-126) (5x10(-5) M) inhibited the delayed death of neuron-like PC12 cells. In particular, PACAP27 inhibited the neurotoxicity of PrP(106-126) at low concentrations (>10(-15) M), characterized by the deactivation of PrP(106-126)-stimulated caspase-3. The neuroprotective effect of PACAP27 was antagonized by the selective PKA inhibitor, H89, or the MAP kinase inhibitor, U0126. These results suggest that PACAP27 attenuates PrP(106-126)-induced delayed neurotoxicity in PC12 cells by activating both PKA and MAP kinases mediated by PAC1 receptor.

L52 ANSWER 18 OF 20 EMBASE
ACCESSION NUMBER: 2005542699 EMBASE Full-text
TITLE: **Vasoactive intestinal peptide** regulates catecholamine secretion in rat PC12 cells through the pituitary **adenylate cyclase** activating polypeptide receptor.
AUTHOR: Onoue S.; Waki Y.; Hamanaka K.; Yajima T.; Kashimoto K.
CORPORATE SOURCE: Dr. S. Onoue, Health Science Division, Itoham Foods Inc., 1-2 Kubogaoka, Moriya, Ibaraki 302-0104, Japan. onoue@fureai.or.jp
SOURCE: Biomedical Research, (2001) Vol. 22, No. 2, pp. 77-82. .
Refs: 23
ISSN: 0388-6107 CODEN: BRESD5
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
008 Neurology and Neurosurgery
022 Human Genetics
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 15 Dec 2005
Last Updated on STN: 15 Dec 2005
ED Entered STN: 15 Dec 2005
Last Updated on STN: 15 Dec 2005
AB **Vasoactive intestinal peptide** (VIP), pituitary **adenylate cyclase activating** polypeptide (PACAP) and glucagon are members of the same family of regulatory peptides, and stimulate catecholamine release by the cAMP-mediated signaling pathway. Most members of this peptide family modulate the expression of the tyrosine hydroxylase gene through multiple adenylate cyclase-coupled receptors. In this investigation, we examined whether these peptides exerted

their effects through their specific receptors in rat pheochromocytoma cells (PC12 cells). The RT-PCR experiments clearly showed the existence of the **PACAP**-specific (PAC1) receptor, but amplified mRNA for either of the two **VIP** receptor was not detected. **PACAP** (6-38), a potent PAC1 receptor antagonist, at a concentration of 2 x 10(-5) M reduced the effects of **VIP** (10(-6) M) as well as those of **PACAP** (10(-6) M) on catecholamine secretion from PC12 cells, but had no significant effect on the effects of glucagon (10(-6) M). Therefore, we suppose that **VIP** acts as a neurotransmitter through a **PACAP** -preferring receptor in PC12 cells.

L52 ANSWER 19 OF 20 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-734675 [75] WPIX
DOC. NO. CPI: C2005-224108 [75]
TITLE: Corneal neuritogenesis promoters containing **PACAP** and its derivatives, for producing drugs to treat dry eye syndrome, reduction in corneal perception and corneal epithelia injury
DERWENT CLASS: B04; D16
INVENTOR: AZUMA M; INOUE Y; NAKAMURA Y; **ONOUE S**; TAKAYAMA Y; YABUTA C
PATENT ASSIGNEE: (ITOH-N) ITOHAM FOODS INC; (SENP-C) SENJU PHARM CO LTD
COUNTRY COUNT: 109

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005102375	A1	20051103	(200575)*	JA	65	[11]
EP 1752158	A1	20070214	(200715)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005102375	A1	WO 2005-JP7609	20050421
EP 1752158	A1	EP 2005-734734	20050421
EP 1752158	A1	WO 2005-JP7609	20050421

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
EP 1752158	A1	Based on	WO 2005102375	A

PRIORITY APPLN. INFO: JP 2004-330464 20041115
JP 2004-128581 20040423

AB WO 2005102375 A1 UPAB: 20060125
NOVELTY - Corneal neuritogenesis promoters, corneal perception promoters, drugs for dry eye and drugs for corneal epithelia injury contain **PACAP** (pituitary **adenylate cyclase- activating** polypeptide), its derivatives or their salts, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) the use of **PACAP**, its derivatives and their salts for producing corneal neuritogenesis promoters, corneal perception promoters, drugs for dry eye and drugs for corneal epithelia injury; and

(2) promoting corneal neuritogenesis, for promoting corneal perception, and for treating dry eye and corneal epithelia injury by administering an effective dose of **PACAP**, its derivatives and their pharmaceutically-acceptable salts to patients needing such treatment.

ACTIVITY - Ophthalmological.

No biological data is given.

MECHANISM OF ACTION - None given in source material.

USE - The drugs based on **PACAP** and its derivatives are for promoting corneal neuritogenesis, and for treating dry eye syndrome, reduction in corneal perception and corneal epithelia injury (all claimed).

ABEX DEFINITIONS - Preferred definitions: In (I): - X1 = Ile; - X2 = Asp - X3 = Ser; - X4 = Ser; - X5 = Tyr; - X6, X8, X9 = Arg; - X7 = Leu; - X10 = Val; and - X11 = Leu-Gly-Arg-Arg.

ADMINISTRATION - Administration is oral or non-oral, e.g. in the form of eye drops.

EXAMPLE - Peptides were prepared by using solid-phase synthesis, and then biological studied were carried out, e.g. with effect on promoting neuritogenesis, in which trigeminal nerve cells from white rabbits were tested as described by Chan et al. (Exp. Eye Res., 1985, Vol. 41, p. 687). Tablets were formulated from e.g. peptide (17; 10 mg), lactose (80 mg), starch (17 mg), magnesium stearate (3 mg) and crystalline cellulose (10 mg).

L52 ANSWER 20 OF 20 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-789952 [78] WPIX
DOC. NO. CPI: C2004-276234 [78]
TITLE: Therapeutic agent for chronic lung disease such as chronic obstructive pulmonary disease, comprises **vasoactive intestinal** peptide (**VIP**) or pituitary gland **adenylate cyclase activating** peptide (**PACAP**) derivatives
DERWENT CLASS: B04
INVENTOR: **ENDO** K; KASHIMOTO K; ONOE M
PATENT ASSIGNEE: (ITOH-N) ITO HAM KK
COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2004315436	A	20041111	(200478)*	JA	60	[10]

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2004315436	A	JP 2003-112096	20030416

PRIORITY APPLN. INFO: JP 2003-112096 20030416

AB JP 2004315436 A UPAB: 20050707

NOVELTY - A therapeutic agent (I) against chronic lung disease, comprises **vasoactive intestinal** peptide (**VIP**) or pituitary-gland **adenylate-cyclase activating** peptide (**PACAP**) derivatives or its pharmacologically acceptable salt, where the alpha position carboxyl group of C terminal amino acid of the peptide derivative is either modified with NH2 or unmodified.

DETAILED DESCRIPTION - A therapeutic agent (I) against chronic lung disease, comprises a peptide (P1) or its pharmacologically acceptable salt, where (P1) has a sequence corresponding to 23 residues from N terminal of a sequence:

His-Ser-Asp-A-B-Phe-Thr-C-D-Tyr-E-Arg-F-Arg-G-Gln-G-Ala-Val-I-J-Tyr-Leu-K-L-M-N (S1)

A = Ala or Gly;
B = Val or Ile;
C = Asp, Glu or Ala;
D = Asn or Ser;
E = Thr or Ser;
F = Leu or Tyr;
G, I and J = Lys or Arg;
K = Asn, Ala or a chemical bond;
L = Ser, Ala or a chemical bond;
M = Ile, Val or chemical bond;
N = is chemical bond, Leu, Leu-Asn, Leu-Asn-Gly, Leu-Asn-Gly-Lys, Leu-Asn-Gly-Arg, Leu-Asn-Gly-Lys-Lys, Leu-Asn-Gly-Lys-Arg, Leu-Asn-Gly-Arg-Arg, Leu-Gly, Leu-Gly-Lys, Leu-Gly-Arg, Leu-Gly-Lys-Lys, Leu-Gly-Lys-Arg, Leu-Gly-Arg-Arg, Leu-Gly-Lys-Arg-Tyr-Lys-Gln-Arg-Val-Lys- Asn-Lys, Leu-Gly-Arg-Arg-Tyr-Arg-Gln-Arg-Val-Arg-Asn-Arg or Leu-Gly-Lys-Arg-Tyr-Lys-Pro-Lys-Arg-Arg-Asn-Ser-Gly-Arg-Arg-Val-Phe-Tyr.

(I) comprises (P1) in which the alpha position carboxyl group of C terminal amino acid is either modified with NH2 or unmodified.

An INDEPENDENT CLAIM is also included for a pharmaceutical composition (II) comprising (I), where (II) treats chronic lung disease such as chronic obstructive pulmonary disease or pulmonary emphysema.

ACTIVITY - Respiratory-Gen.

MECHANISM OF ACTION - Suppressor of inflammation; Suppressor of cell death.

The cell death inhibitory action of vasoactive intestinal peptide (VIP) derivative was evaluated as follows. 0.25% of VIP derivative was added to L2 cell cultured in tobacco smoke extract. The presence or absence of cell death inhibitor effect was examined by calculating the number of cells after 48 hours of the addition. The results showed that the VIP derivative had a significant cell protective effect.

USE - (I) or (II) is useful for treating chronic lung disease such as chronic obstructive pulmonary disease (COPD) or pulmonary emphysema (claimed).

ADVANTAGE - (P1) exhibits a strong therapeutic effect on COPD as compared to natural type VIP or pituitary gland adenylate-cyclase activating peptide (PACAP). (P1) has improved stability in solution.

ABEX ADMINISTRATION - (I) is administered by oral or nasal route in dosages ranging from 1 pg-1 mg/kg body weight as an oral formulation, powder formulation, powder nasal-drip formulation, eyes local administration agent or coating agent (claimed).

EXAMPLE - Vasoactive intestinal peptide (VIP) or pituitary gland adenylate-cyclase activating peptide (PACAP) derivatives were synthesized using solid phase peptide synthesis.

```
=> d his full

     (FILE 'HOME' ENTERED AT 16:18:43 ON 15 AUG 2007)

     FILE 'REGISTRY' ENTERED AT 16:18:53 ON 15 AUG 2007
L1           59 SEA ABB=ON  PLU=ON  HSDA[VI]FT[DEA][NS]Y[TS]R[LY]R[KR]Q[L'NLE']
                AV[KR][KR]YLAA[IV]L|HSDA[VI]FT[DEA][NS]Y[TS]R[LY]R[KR]Q[L'NLE']
                AV[KR][KR]YLAA[IV]LN|HSDA[VI]FT[DEA][NS]Y[TS]R[LY]R[KR]Q[L'NLE'
                ]AV[KR][KR]YLAA[IV]LG.{0-10}/SQSP

     FILE 'CAPLUS' ENTERED AT 16:20:40 ON 15 AUG 2007
L2            4 SEA ABB=ON  PLU=ON  L1
                SEL RN

     FILE 'REGISTRY' ENTERED AT 16:21:50 ON 15 AUG 2007
L*** DEL    133 S E1-E133
L*** DEL     59 S L1 AND L3

     FILE 'REGISTRY' ENTERED AT 16:25:30 ON 15 AUG 2007
                D QUE L1
                D RN CN SQL KWIC NTE L1 1-59

     FILE 'CAPLUS' ENTERED AT 16:26:29 ON 15 AUG 2007
                D QUE L2
                D IBIB ED AB HITRN L2
                D IBIB ED AB HITRN L2 2-4

     FILE 'STNGUIDE' ENTERED AT 16:28:32 ON 15 AUG 2007

     FILE 'CAPLUS' ENTERED AT 16:29:26 ON 15 AUG 2007
                E ONOUE S/AU
                E US2005-536880/APPS
L3            1 SEA ABB=ON  PLU=ON  US2005-536880/AP
                D IALL
L*** DEL      1 S L3 AND L2
                D SCAN
                E ENDO K/AU
                E ENDO KOUSUKE/AU
                E MATSUMOTO A/AU
                E MATSUMOTO ASAMI/AU
L4           58 SEA ABB=ON  PLU=ON  ONOUE S/AU OR ONOUE SATOMI/AU
L*** DEL      0 S KOUSUKE E/AU OR KOUSUKE ENDO/AU
L5          403 SEA ABB=ON  PLU=ON  ENDO K/AU OR ENDO KOUSUKE/AU
L6          247 SEA ABB=ON  PLU=ON  MATSUMOTO A/AU OR MATSUMOTO ASAMI/AU
L7            1 SEA ABB=ON  PLU=ON  L4 AND L5 AND L6
L8           87 SEA ABB=ON  PLU=ON  (L4 OR L5 OR L6) AND (PROTEIN? OR PEPTIDE
                OR PACAP OR VIP)
L9           72 SEA ABB=ON  PLU=ON  (L4 OR L5 OR L6) AND (PROTEIN? OR PEPTIDE
                OR PACAP OR VIP)/TI,AB
                E PROTEIN SEQUENCES+ALL/CT
L10       11429 SEA ABB=ON  PLU=ON  PROTEIN SEQUENCES+PFT/CT (L) (MEDICIN? OR
                THERAP? OR PHARMA?)
                E PEPTIDES, BIOLOGICAL STUDIES+ALL/CT
L*** DEL      0 S PEPTIDES, BIOLOGICAL STUDIES/CT (L) THU,PAC/RL
L*** DEL      0 S PEPTIDES, BIOLOGICAL STUDIES/CT (L) (THU,PAC)/RL
L11       18112 SEA ABB=ON  PLU=ON  PEPTIDES, BIOLOGICAL STUDIES/CT (L) THU/RL

L12        4827 SEA ABB=ON  PLU=ON  PEPTIDES, BIOLOGICAL STUDIES/CT (L) PAC/RL
```

```
L13            4 SEA ABB=ON  PLU=ON  (L4 OR L5 OR L6) AND (L10 OR L11 OR L12)
                 D SCAN TI

     FILE 'MEDLINE' ENTERED AT 16:42:59 ON 15 AUG 2007
                 E ONOUE S/AU
                 E ENDO K/AU
                 E ENDO KOUSUKE/AU
                 E MATSUMOTO A/AU
                 E MATSUMOT ASAMI/AU
                 E MATSUMOTO ASAMI/AU
L14           36 SEA ABB=ON  PLU=ON  ONOUE S/AU OR ONOUE SATOMI/AU
L15         1081 SEA ABB=ON  PLU=ON  ENDO K/AU OR ENDO KOUSUKE/AU
L16          869 SEA ABB=ON  PLU=ON  MATSUMOTO A/AU OR MATSUMOTO ASAMI/AU
L17            0 SEA ABB=ON  PLU=ON  L14 AND L15 AND L16
L18          291 SEA ABB=ON  PLU=ON  (L14 OR L15 OR L16) AND (PROTEIN? OR
                 PEPTIDE OR PACAP OR VIP)/TI,AB
L19          116 SEA ABB=ON  PLU=ON  L18 AND (MEDICIN? OR THERAP? OR PHARMA?)
                 D TRIAL 1-10
L*** DEL       0 S VASOACTIVE INTESTINAL PEPTIDE/MAJ
L20         9067 SEA ABB=ON  PLU=ON  VASOACTIVE INTESTINAL PEPTIDE/CT
L21         2070 SEA ABB=ON  PLU=ON  L20/MAJ (L) PD/CT
L22        14342 SEA ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS/CT
L23            5 SEA ABB=ON  PLU=ON  (L14 OR L15 OR L16) AND L21
L24            1 SEA ABB=ON  PLU=ON  (L14 OR L15 OR L16) AND L20 AND L22
L25            6 SEA ABB=ON  PLU=ON  (L23 OR L24)

     FILE 'BIOSIS' ENTERED AT 16:51:39 ON 15 AUG 2007
                 E ONOUE S/AU
                 E ENDO K/AU
                 E ENDO KOU/AU
                 E MATSUMOTO A/AU
                 E MATSUMOTO ASAMI/AU
L26           42 SEA ABB=ON  PLU=ON  ONOUE S/AU OR ONOUE SATOMI/AU
L27          813 SEA ABB=ON  PLU=ON  ENDO K/AU OR ENDO KOSUKI/AU
L28          716 SEA ABB=ON  PLU=ON  MATSUMOTO A/AU OR MATSUMOTO ASAMI/AU
L29            2 SEA ABB=ON  PLU=ON  L26 AND L27 AND L28
                 D SCAN
L30          953 SEA ABB=ON  PLU=ON  PEPTIDE/TI AND DRUG DELIVERY
L31            3 SEA ABB=ON  PLU=ON  (L26 OR L27 OR L28) AND L30
L32            1 SEA ABB=ON  PLU=ON  L31 NOT L29
                 D SCAN

     FILE 'EMBASE' ENTERED AT 16:56:36 ON 15 AUG 2007
                 E ONOUE S/AU
                 E ENDO K/AU
                 E MATSUMOTO A/AU
L33           51 SEA ABB=ON  PLU=ON  ONOUE S/AU
L34         1139 SEA ABB=ON  PLU=ON  ENDO K/AU
L35         1018 SEA ABB=ON  PLU=ON  MATSUMOTO A/AU
L36            3 SEA ABB=ON  PLU=ON  L33 AND L34 AND L35
                 D TRIAL 1-3
L*** DEL       0 S VASOACTIVE INTESTINAL PEPTIDE[15,20,21 ARGININE 17 LEUCINE]/C
L37            0 SEA ABB=ON  PLU=ON  VASOACTIVE INTESTINAL PEPTIDE/CT
                 E VASOACTIVE INTESTINAL PEPTIDE/CT
L38         5489 SEA ABB=ON  PLU=ON  VASOACTIVE INTESTINAL PEPTIDE
L39        34336 SEA ABB=ON  PLU=ON  DRUG DELIVERY SYSTEM
L40           12 SEA ABB=ON  PLU=ON  (L33 OR L34) AND L38
L41            7 SEA ABB=ON  PLU=ON  (L33 OR L34) AND L39
                 D TRIAL 1-7
```

```
              D TRIAL L40 1-12

     FILE 'WPIX' ENTERED AT 17:03:55 ON 15 AUG 2007
              E ONOUE S/AU
              E ENDO K/AU
              E MATSUMOTO A/AU
L42            39 SEA ABB=ON  PLU=ON  ONOUE S/AU
L43          5312 SEA ABB=ON  PLU=ON  ENDO K/AU
L44          2587 SEA ABB=ON  PLU=ON  MATSUMOTO A/AU
L45          7930 SEA ABB=ON  PLU=ON  (L42 OR L43 OR L44)
L46             1 SEA ABB=ON  PLU=ON  L42 AND L43 AND L44
L47           897 SEA ABB=ON  PLU=ON  ADENYLATE CYCLASE ACTIVATING  OR VASOACTIVE
                   INTESTINAL OR VIP OR PACAP
L48             5 SEA ABB=ON  PLU=ON  L45 AND L47
              D SCAN

     FILE 'EMBASE' ENTERED AT 17:08:41 ON 15 AUG 2007
L49            12 SEA ABB=ON  PLU=ON  (L36 OR L40 OR L41) AND  (ADENYLATE
                  CYCLASE ACTIVATING  OR VASOACTIVE INTESTINAL OR VIP OR PACAP)
              D TRIAL 1-12

     FILE 'CAPLUS' ENTERED AT 17:10:22 ON 15 AUG 2007
              D QUE L13

     FILE 'MEDLINE' ENTERED AT 17:10:47 ON 15 AUG 2007
              D QUE L17
              D QUE L25

     FILE 'BIOSIS' ENTERED AT 17:10:58 ON 15 AUG 2007
              D QUE L29
              D QUE L31
L50             3 SEA ABB=ON  PLU=ON  L29 OR L31

     FILE 'EMBASE' ENTERED AT 17:11:23 ON 15 AUG 2007
              D QUE L49

     FILE 'WPIX' ENTERED AT 17:11:33 ON 15 AUG 2007
              D QUE L46
              D QUE L48
L51             5 SEA ABB=ON  PLU=ON  L46 OR L48

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, WPIX' ENTERED AT 17:12:48 ON 15
     AUG 2007
L52            20 DUP REM L25 L13 L50 L49 L51 (10 DUPLICATES REMOVED)
                     ANSWERS '1-6' FROM FILE MEDLINE
                     ANSWERS '7-10' FROM FILE CAPLUS
                     ANSWERS '11-12' FROM FILE BIOSIS
                     ANSWERS '13-18' FROM FILE EMBASE
                     ANSWERS '19-20' FROM FILE WPIX
              D IBIB ED AB L52 1-18
              D IBIB AB ABEX L52 19-20


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   14 AUG 2007  HIGHEST RN 944643-48-5
```

DICTIONARY FILE UPDATES: 14 AUG 2007 HIGHEST RN 944643-48-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

FILE CAPLUS

FILE COVERS 1907 - 15 Aug 2007 VOL 147 ISS 8
FILE LAST UPDATED: 14 Aug 2007 (20070814/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug 10, 2007 (20070810/UP).

FILE MEDLINE
FILE LAST UPDATED: 14 Aug 2007 (20070814/UP). FILE COVERS 1950 TO DATE.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS
FILE COVERS 1926 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 8 August 2007 (20070808/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926 through 1968. These records have been re-indexed to match current BIOSIS indexing.

FILE EMBASE
FILE COVERS 1974 TO 15 Aug 2007 (20070815/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE WPIX
FILE LAST UPDATED: 14 AUG 2007 <20070814/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200752 <200752/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> Now containing more than 1 million chemical structures in DCR <<<

>>> IPC Reform backfile reclassification has been loaded to 31 May 2007. No update date (UP) has been created for the reclassified documents, but they can be identified by 20060101/UPIC and 20061231/UPIC and 20060601/UPIC. <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://scientific.thomson.com/support/patents/coverage/latestupdates/

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

=>